

# **Educational Technology Plan for Forest Hills Local SD - 047340**

**School Years:**

**2009-10**

**2010-11**

**2011-12**

**eTech Ohio Certified on Jun 29, 2009**

**Certification Period: July 1, 2009 - Jun 30, 2012**

*\*created using the eTech Ohio online Technology Planning Tool version 3.0 (TPTv3)*

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## Pre-Planning

### 1.0 Establish Technology Planning Committee

Assistive Technology/Special Needs Coordinator  
 Curriculum Coordinator  
 Instructional Integrationist  
 Library/Media Specialist  
 Superintendent  
 Technology Coordinator  
 Technology Support  
 Treasurer  
 Other

Approvers:

John Patzwald (Superintendent)  
 Rick Toepfer (Treasurer)  
 Tracy Varner (Technology Coordinator/Director)

### 1.1 Overview of TPT Planning Framework

eTech Ohio's Technology Planning Tool, strategically addresses technology planning in an educational organization and provides guidance in implementing technology to increase student achievement. Within this technology plan you will find the educational organization's vision and mission statements as well as a plan for the following: ODE Academic Content Standards (ACS) alignment with the ODE Technology ACS, technology integration into the curriculum, technology policy, technology leadership and administration, infrastructure and networking, and budgeting.

The technology planning framework addresses 5 questions adapted from "Asking the Right Questions: Techniques for Collaboration and School Change" by Edie Holcomb. In each phase of the plan, narrative responses describe the educational organization's technology planning in the following manner:

**"Where are we now?"** addresses ASSESSMENT of current status within the educational organization

**"Where do we want to go?"** addresses GOALS for growth in various areas

**"How will we get there?"** addresses PROFESSIONAL DEVELOPMENT necessary to achieve goals

**"How will we know we're getting there?"** addresses the EVALUATION PROCESS that enables the educational organization to MONITOR PROGRESS toward the specified goals.

**"How do we sustain the momentum?"** Addresses ORGANIZATIONAL SUPPORT, EVALUATION and REVISION processes to achieve the goals

As Ohio endeavors to build more agile and effective school improvement plans, this technology plan will be an instrumental tool in fostering quality planning and managing technological changes that will impact the communities where we live.

### 1.2 Review Current Technology Plan

To what goals and strategies does your current plan commit to advance the use of technology to enhance teaching and learning?

Are any of these goals no longer relevant?

What goals and strategies were met, and to what degree of success?

The 06-09 tech plan was evaluated on a yearly basis by the Directors of Student Services and Curriculum along with the approvers of the plan: the Technology Coordinator, Superintendent, and Treasurer. Progress toward goals was monitored by the Technology Coordinator, and building-level Technology Coordinators (BTCs).

The 06-09 tech plan defined several goals and strategies for the advancement and use of technology to enhance teaching and learning:

1. Complete the process of aligning our curriculum to the Ohio Technology Academic Content Standards (OTACS) via the curriculum revision cycle in each subject area. Due to budget shortfalls, the revision process was slowed by nearly 50%. As a result, we do not have the progress in the alignment process we had anticipated.

2. Provide appropriate professional development (PD) activities to support teachers by providing opportunities for collaboration. The TABLET Program was created for this purpose and supported by leadership from BTCs

collaborating with their staff and their grade/subject peers in the year-long PD experience. In preparation for the TABLET Program, staff/district personnel visited schools around the state. The TABLET Program was well-received and has provided ongoing, embedded PD.

3. Move from a teacher-centered classroom to a student-centered classroom by offering incentives for teachers to pursue tech-/project-based instruction. The TABLET Program accepted 100 volunteer staff/year to participate in this 1-year PD opportunity. Staff received a tablet PC, wireless projector, presentation cart and speakers. In the 08-09 school year, two teams of teachers participated in a regional PD experience called Powerful Learning Practices. This PD model immersed educators into environments and practices that allowed them to learn and own the literacies of 21st Century learning and teaching.

4. Provide up-to-date equipment and software by improving the refresh cycle of district hardware. VARtek TMS performed an overall tech assessment and mapped out a strategy to put the district on a 5-year replacement cycle. A software audit was completed and Study Island was purchased to provide remediation efforts in core content areas as well as support for the OAT/OGT.

5. Increase the number of technicians supporting the district by adding two in 06-07, and one/year in 07-08 and 08-09. This enabled each secondary building to have a dedicated, full-time technician and each elementary to have a half-time technician.

Please address the following as you plan for the next three years. Be sure to record your conclusions for reflection.

Were there any unexpected outcomes or new needs that emerged?

Which goals and strategies still need to be addressed? How will the technology committee address them?

Upon reflection and evaluation of the district's current situation, it is evident that some of these goals are no longer relevant.

Because the TABLET Program has met with such success, it is no longer appropriate to look at the acquisition of specific technology skills by staff members as an adequate measure of successful integration of technology. A more appropriate means of assessing successful technology needs to be selected and implemented. This method should focus on pedagogical shift rather than skill acquisition.

Due to the failure of a May 2009 operating levy, the district found it necessary to consider eliminating some instructional and support positions. As a result, all district tech support positions have been eliminated, and VARtek, a technology management service, has been contracted for the years 09 - 14. They will be our source for district-wide tech support. This decision will lower the total number of on-site technical support staff from 8 positions to 5.

Did any new needs emerge?

The overwhelming success of the TABLET program created the need for several changes in our district. Most importantly, we are in need of an infrastructure update to support increased number of staff- and student-use devices on the network. We also believe it is necessary to migrate from a Novell environment to a Microsoft Windows environment.

We have many more teachers utilizing Web-based applications in support of classroom technology integration/collaboration. This has created a need for the district to provide these Web-based services (blogs, wikis, forums, etc.) in-house for the security of teachers and students. We are considering developing a SharePoint Learning Gateway to resolve these issues.

Finally, it is vital that we eliminate redundancy in district-wide data-entry/management process. We must develop a seamless process for the creation of accounts for various software pieces utilized by the district. Ultimately, it would be nice to replace dated FileMaker programs that are beginning to cause frustration for end users and take advantage of the SIF client for DASL when made available by the state.

## 1.3 Vision/Mission

### A. Vision

The vision of the Forest Hills Local School District is to create an empowered community, where learning is continuous, relevant and adaptive.

- Teachable moments must not be limited to the classroom alone. We will strive to create environments powered by increased access to tools of the digital age in order to nurture anytime, anywhere learning.
- Learners are inspired by the connections they make between curriculum and the real world, therefore the Forest

Hills Local School District will leverage community interaction and the latest instructional tools in order to increase relevancy.

- Individual students learn in individual ways. The Forest Hills Local School District will not be a one-size-fits-all offering. Instead, we will use technology and adaptive instructional models to effectively and efficiently empower students to identify, assess, and adopt new technologies for more effective learning.

(Adapted from the School District of Philadelphia's School of the Future Vision and Mission)

**B. Mission**

The Forest Hills Local School District:

- applies research and development to generate educational practices, creating an environment involving all members;
- ignites passionate, personal responsibility for learning; and
- inspires a commitment to active citizenship.

(Adapted from the School District of Philadelphia's School of the Future Vision and Mission)

## Curriculum Alignment & Instructional Integration

### 2.1 How Are You Making Ohio's Technology Standards An Official Part Of Your District's Curriculum?

This section is a prerequisite for Sections 2.2 through 2.8 and should be considered as a separate task with a different goal. The goal of this section is to describe how your district is including Ohio Technology Standards into the district's curriculum. Regardless whether your district calls it a "Graded Course of Study," "Curriculum Map," or something else – all districts have some form of documentation that spells out what is expected to be taught. The content standards for technology should be written into these documents so they are interwoven with the content standards for math, science etc. For Educational Service Centers (ESCs), please identify how you are assisting your contracted schools in aligning their curriculum to technology standards.

The academic content standards, known as curriculum, describe what to teach. Technology standards should be embedded within the content from other disciplines in order to deliver the curriculum in a highly effective and motivational way.

1. Using the grid below, please indicate the status of your district's efforts to embed Ohio's Technology Standards into the content standards for each curricular area. In the left column, "Where Are We Now?," please select "Not Started," "In Progress," or "Complete" for each curriculum area listed. In the right column, "Where Do We Want To Go?" please select the school year you completed or plan to complete this process.

	Where are we now?	Where do we want to go?
English Language Arts	Complete	2007-08
Fine Arts	In Progress	2009-10
Foreign Language	Complete	2007-08
Mathematics	In Progress	2009-10
Science	Not Started	2010-11
Social Studies	Not Started	2011-12
Technology (specific course)	Not Started	2010-11
Other Content Areas	Not Started	2009-10

2. In the textboxes below, please provide brief but comprehensive descriptions of how you are writing Ohio's Technology Standards into all of your curriculum areas. How are you measuring progress toward that goal, and how will you sustain a culture of technology integration into the future?

#### How will we get there?

Since the creation of our 2006-2009 technology plan, our course of study revision cycle had to be adjusted to align with reduced textbook purchasing budgets. The updated course of study plan allowed for a new English Language Arts course of study and a new Foreign Language course of study to be created and integrated with the indicators in the Forest Hills School District adopted Technology Course of Study in the 2007-2008 school year. The revision of the Mathematics and Fine Arts courses of study are currently underway, and we anticipate their alignment to the Technology Course of Study in the 2009-2010 school year.

As each remaining content area is revised in the future, the course of study committees will review and make changes to incorporate technology meaningfully within each academic content area. Professional development opportunities will be provided to teachers as each academic content area is revised and the alignment process continues to evolve.

#### How will we know we're getting there?

There are several initiatives the Forest Hills School District personnel will implement to monitor our progress in aligning the technology indicators with the other academic content areas. As each content area course of study revision progresses, new members serving on the committees will provide fresh eyes for evaluating the current course of study in terms of effective alignment connections and will also provide a current perspective in terms of identifying both new and alternate connections between the content area and technology. As the skills of both students and teachers evolve, new skill-set expectations will also drive the content connections and alignment opportunities.

Surveys and authentic observations will be utilized to provide a global assessment of our progress and in turn

foster the incorporation of novel alignment possibilities. Surveys will involve not only teachers and students but also parents and administrators.

**How will we sustain focus and momentum?**

While it is imperative that the curriculum alignment process continues through each curriculum revision and adoption cycle, that alone will not guarantee that the aligned content is actualized within the instructional process throughout the various grade levels and content areas. This will require a concerted effort involving teachers and administrators who share a common vision for a 21st Century learning environment.

Administrators will play a vital role in promoting alignment of technology standards in instructional practices through the focus they place on this occurrence within their buildings. Expectations for technology integration and a demonstrable shift toward a 21st Century learning environment will be valued and identified in the observation/evaluation process. This will demonstrate a commitment to the instructional staff on the part of the district to promote alignment meaningfully during instruction.

As new applicants for teaching positions are received and screened, each applicant's concept of 21st Century classroom environments will be assessed and evaluated for both their technology knowledge and alignment to the district's technology vision.

Summer Technology Workshops, new in the summer of 2008, will be continued through the duration of this plan. These workshops will leverage the expertise of our staff for instruction in various areas of hardware and software integration.

The district will continue to support its Tablet PC Program for professional development. Beginning with the 2006-2007 school year, approximately 100 teachers per year received year-long professional development (synchronous and asynchronous) along with a Tablet PC, LCD Projector and Cart. As we move forward through the years inclusive of this plan, we will induct our final 200 teachers in this program.

In addition to our successful Tablet PC program, a new program, ACCESS 21, is under development within the district. This program is designed to utilize a three-pronged approach to increasing student access to technology at the secondary level. Students may choose to use an ACCESS 21 district owned netbook, purchase an ACCESS 21 bundle consisting of a computing device and a suite of applications that will support student learning in a technology-rich environment, or bring a personally-owned laptop into the school with full access to the network. The proposed roll-out of this program is for the 2011-2012 school year, however mini-pilots will begin in 2009-2010.

## **2.2 How Will You Be Using Technology to Improve Teaching and Learning in English/Language Arts?**

The goal of section 2.2 is to identify the major elements of your district's plans to use technology to enhance teaching and learning in English/Language Arts at the elementary, middle and secondary levels over the next three years.

The primary objective is that you provide a brief description of two or three broad-based practices being utilized by the majority of your district's teachers to use technology to improve teaching and learning at the elementary, middle and secondary levels. For example, if all or most of your fifth through seventh grade English/Language Arts teachers are requiring students to conduct internet research or produce multimedia presentations on a regular basis; this would qualify as a broad-based practice. But if only a fraction of your teachers are regularly using these tools in the classroom – do not portray it as a broad-based practice.

Please feel free to include information about significant technology integration practices which are, by nature, not broad-based. For example, if a high school science teacher is using simulation software to allow students to conduct virtual experiments which are too dangerous to replicate in the classroom or lab; please indicate this in the Science curriculum area at the high school level only.

Using the ACOT Scale and the grid below, indicate your school's current level of effective technology integration in the English/Language Arts instructional process, as well as your target levels for improvement. If your responses fall between whole numbers, such as between 3.0 and 4.0, feel free to use .5 increments such as 3.5.

**Current Levels of Technology Integration in English/Language Arts**

**1.0 Entry** - Learn the basics of using new technology.

**2.0 Adoption** - Use new technology to support traditional instruction.

**3.0 Adaptation** - Integrate new technology into traditional classroom practice. Here, they often focus on increased student productivity and engagement by using word processors, spreadsheets, and graphics tools.

**4.0 Appropriation** - Focus on cooperative, project-based, and interdisciplinary work, incorporating technology as needed.

**5.0 Invention** - Discover new uses for technology tools. Develop spreadsheet macros for teaching algebra for example, or design projects that combine multiple technologies.

	Where are we now?	Where do we want to go?
Pre-K	1.5	3.0
K-2	2.0	3.0
3-4	3.0	4.0
5-7	3.5	4.5
8-10	2.5	3.5
11-12	2.5	3.5

### How will we get there?

1. Create a culture where technology is not seen as an add-on, but rather a learning tool, no less necessary than a pencil or a textbook. Examples of this include the use of Web 2.0 tools to facilitate collaboration within and beyond the classroom, the use of tablet PCs and wireless projectors in the delivery of content, the incorporation of video clips to support learning concepts, digital and video recordings of oral reading and speaking activities, etc. Student examples would be the utilization of Microsoft Office Live to share writing samples and offer feedback on others' work and the use of Wikis to participate in a classroom book club for an assigned novel.
2. Provide job-embedded professional development and staff training in support of this cultural shift via the TABLET Program and provide adequate staff to support this goal.
3. Continue the development of our district's eCurriculum Web site and the integration of the Ohio Technology Academic Content Standards via the curriculum revision process.
4. Leverage the LPDC process to encourage teacher research, testing and professional development initiatives for innovative new hardware and software applications.

### How will we know we're getting there?

1. A notable pedagogical shift will begin to emerge as teachers realize the potential that new and emerging social networking, multimedia and Web 2.0 technologies offer for their own professional and personal growth, and as a result of this understanding, help their students take advantage of these tools in powerful, yet safe and ethical ways.
2. The classroom environment will shift from teacher-directed to student-directed.
3. Teachers will request more equipment, software and training.

In order for building and district administrators to track progress toward these goals, it will be necessary to create a process for monitoring and documenting them. Some standard measure or rubric will need to be adopted and used as a part of the teacher evaluation process. We will evaluate a variety of options and select one to implement.

### How will we sustain focus and momentum?

Via the year-long professional development TABLET Program, teachers are being provided with up-to-date software and personal-use equipment for instructional and planning purposes. This project will induct its fourth group of one hundred teachers during the 09-10 school year. This program provides for day-to-day on-demand access which facilitates teachers' increased proficiency with technology. As teachers become more proficient with the tools of technology, they are more comfortable bringing them into their instructional practice, thereby increasing the likelihood of advancements in teaching, learning, and student achievement. In addition, the district has created a hardware model with recommended building and classroom hardware configurations based on grade level and/or subject area. This hardware model provides guidance to building administrators as they plan their yearly technology purchases.

The Forest Hills Local School District provides professional development support in a multitude of ways. We have a district Instructional Technology Specialist that facilitates the TABLET program, coordinating



synchronous and asynchronous collaborative learning environments with a goal of not only mentoring the participants in the "how-to" of the hardware and software tools, but also guiding teachers in examining their current instructional practice and helping them re-envision what they do in their classrooms, culminating in a learning environment more powerful and relevant to the students they teach. We also have an Educational Software Project Manager that assists in the training and implementation of all district software applications as well as individual building technology coordinators who serve as part-time technology integration support for their staff.

Other formats for technology professional development beyond the scope of our TABLET Program include our district Summer Technology Workshops, asynchronous meetings and training via our Moodle site and Elluminate! in addition to district-wide opportunities for collaboration and planning during our yearly November inservice day. Each of these technology PD opportunities supports curriculum goals by being presented in the context of core content areas and focusing on best instructional practice for the purpose of increasing student achievement.

Since the spring of 2009, all district professional development activities and participation have been documented via PDEXpress, a database that provides an online meeting request forms with an electronic approval process and a connection back to the human resources department for LPDC documentation. Staff members have individual accounts and can track the process of all professional development requests in addition to their completed activities.

## 2.3 How Will You Be Using Technology to Improve Teaching and Learning in Fine Arts?

The goal of section 2.3 is to identify the major elements of your district's plans to use technology to enhance teaching and learning in Fine Arts at the elementary, middle and secondary levels over the next three years.

The primary objective is that you provide a brief description of two or three broad-based practices being utilized by the majority of your district's teachers to use technology to improve teaching and learning at the elementary, middle and secondary levels. For example, if all or most of your fifth through seventh grade Fine Arts teachers are requiring students to conduct internet research or produce multimedia presentations on a regular basis; this would qualify as a broad-based practice. But if only a fraction of your teachers are regularly using these tools in the classroom – do not portray it as a broad-based practice.

Please feel free to include information about significant technology integration practices which are, by nature, not broad-based. For example, if a high school science teacher is using simulation software to allow students to conduct virtual experiments which are too dangerous to replicate in the classroom or lab; please indicate this in the Science curriculum area at the high school level only.

Using the ACOT Scale and the grid below, indicate your school's current level of effective technology integration in the Fine Arts instructional process, as well as your target levels for improvement. If your responses fall between whole numbers, such as between 3.0 and 4.0, feel free to use .5 increments such as 3.5.

### Current Levels of Technology Integration in Fine Arts

**1.0 Entry** - Learn the basics of using the new technology.

**2.0 Adoption** - Use new technology to support traditional instruction.

**3.0 Adaptation** - Integrate new technology into traditional classroom practice. Here, they often focus on increased student productivity and engagement by using word processors, spreadsheets, and graphics tools.

**4.0 Appropriation** - Focus on cooperative, project-based, and interdisciplinary work - incorporating the technology as needed and as one of many tools.

**5.0 Invention** - Discover new uses for technology tools, for example, developing spreadsheet macros for teaching algebra or designing projects that combine multiple technologies.

	Where are we now?	Where do we want to go?
Pre-K	N/A	N/A
K-4	2.0	3.0
5-8	2.0	3.0
9-12	2.0	3.0

**How will we get there?**

1. Create a culture where technology is not seen as an add-on, but rather a learning tool, no less necessary than a pencil or a textbook. Examples of this include the use of Web 2.0 tools to facilitate collaboration within and beyond the classroom, the use of tablet PCs and wireless projectors in the delivery of content, the incorporation of video clips to support learning concepts, digital and video recordings of oral reading and speaking activities, etc. Student examples would be utilizing digital editing and printing of photography studio work, using SmartMusic software to record and play back practice sessions for evaluation and collaboration with a teacher, and participating in a shared learning environment by contributing content (links, images, text) relative to another students' art concentration area.
2. Provide job-embedded professional development and staff training in support of this cultural shift via the TABLET Program and provide adequate staff to support this goal.
3. Continue the development of our district's eCurriculum Web site and the integration of the Ohio Technology Academic Content Standards via the curriculum revision process.
4. Leverage the LPDC process to encourage teacher research, testing and professional development initiatives for innovative new hardware and software applications.

**How will we know we're getting there?**

1. A notable pedagogical shift will begin to emerge as teachers realize the potential that new and emerging social networking, multimedia and Web 2.0 technologies offer for their own professional and personal growth, and as a result of this understanding, help their students take advantage of these tools in powerful, yet safe and ethical ways.
2. The classroom environment will shift from teacher-directed to student-directed.
3. Teachers will request more equipment, software and training.

In order for building and district administrators to track progress toward these goals, it will be necessary to create a process for monitoring and documenting them. Some standard measure or rubric will need to be adopted and used as a part of the teacher evaluation process. We will evaluate a variety of options and select one to implement.

**How will we sustain focus and momentum?**

Via the year-long professional development TABLET Program, teachers are being provided with up-to-date software and personal-use equipment for instructional and planning purposes. This project will induct its fourth group of one hundred teachers during the 09-10 school year. This program provides for day-to-day on-demand access which facilitates teachers' increased proficiency with technology. As teachers become more proficient with the tools of technology, they are more comfortable bringing them into their instructional practice, thereby increasing the likelihood of advancements in teaching, learning, and student achievement. In addition, the district has created a hardware model with recommended building and classroom hardware configurations based on grade level and/or subject area. This hardware model provides guidance to building administrators as they plan their yearly technology purchases.

The Forest Hills Local School District provides professional development support in a multitude of ways. We have a district Instructional Technology Specialist that facilitates the TABLET program, coordinating synchronous and asynchronous collaborative learning environments with a goal of not only mentoring the participants in the "how-to" of the hardware and software tools, but also guiding teachers in examining their current instructional practice and helping them re-envision what they do in their classrooms, culminating in a learning environment more powerful and relevant to the students they teach. We also have an Educational Software Project Manager that assists in the training and implementation of all district software applications as well as individual building technology coordinators who serve as part-time technology integration support for their staff.

Other formats for technology professional development beyond the scope of our TABLET Program include our district Summer Technology Workshops, asynchronous meetings and training via our Moodle site and Elluminate! in addition to district-wide opportunities for collaboration and planning during our yearly November inservice day. Each of these technology PD opportunities supports curriculum goals by being presented in the context of core content areas and focusing on best instructional practice for the purpose of increasing student achievement.

Since the spring of 2009, all district professional development activities and participation have been documented via PDEXpress, a database that provides an online meeting request forms with an electronic approval process and a connection back to the human resources department for LPDC documentation. Staff

members have individual accounts and can track the process of all professional development requests in addition to their completed activities.

## 2.4 How Will You Be Using Technology to Improve Teaching and Learning in Foreign Language?

The goal of section 2.4 is to identify the major elements of your district's plans to use technology to enhance teaching and learning in Foreign Language at the elementary, middle and secondary levels over the next three years.

The primary objective is that you provide a brief description of two or three broad-based practices being utilized by the majority of your district's teachers to use technology to improve teaching and learning at the elementary, middle and secondary levels. For example, if all or most of your fifth through seventh grade Foreign Language teachers are requiring students to conduct internet research or produce multimedia presentations on a regular basis; this would qualify as a broad-based practice. But if only a fraction of your teachers are regularly using these tools in the classroom – do not portray it as a broad-based practice.

Please feel free to include information about significant technology integration practices which are, by nature, not broad-based. For example, if a high school science teacher is using simulation software to allow students to conduct virtual experiments which are too dangerous to replicate in the classroom or lab; please indicate this in the Science curriculum area at the high school level only.

Using the ACOT Scale and the grid below, indicate your school's current level of effective technology integration in the Foreign Language instructional process, as well as your target levels for improvement. If your responses fall between whole numbers, such as between 3.0 and 4.0, feel free to use .5 increments such as 3.5.

### Current Levels of Technology Integration in Foreign Language

- 1.0 **Entry** - Learn the basics of using the new technology.
- 2.0 **Adoption** - Use new technology to support traditional instruction.
- 3.0 **Adaptation** - Integrate new technology into traditional classroom practice. Here, they often focus on increased student productivity and engagement by using word processors, spreadsheets, and graphics tools.
- 4.0 **Appropriation** - Focus on cooperative, project-based, and interdisciplinary work - incorporating the technology as needed and as one of many tools.
- 5.0 **Invention** - Discover new uses for technology tools, for example, developing spreadsheet macros for teaching algebra or designing projects that combine multiple technologies.

	Where are we now?	Where do we want to go?
Pre-K	N/A	N/A
K-4	N/A	N/A
5-8	3.0	4.0
9-12	2.5	3.5

### How will we get there?

1. Create a culture where technology is not seen as an add-on, but rather a learning tool, no less necessary than a pencil or a textbook. Examples of this include the use of Web 2.0 tools to facilitate collaboration within and beyond the classroom, the use of tablet PCs and wireless projectors in the delivery of content, the incorporation of video clips to support learning concepts, digital and video recordings of oral reading and speaking activities, etc. Student examples would be using Google Translator to practice reading student-selected content in a foreign language and using a wiki to collaborate on a project with students from another country that speak the language being studied.
2. Provide job-embedded professional development and staff training in support of this cultural shift via the TABLET Program and provide adequate staff to support this goal.
3. Continue the development of our district's eCurriculum Web site and the integration of the Ohio Technology Academic Content Standards via the curriculum revision process.
4. Leverage the LPDC process to encourage teacher research, testing and professional development initiatives for innovative new hardware and software applications.

### How will we know we're getting there?

1. A notable pedagogical shift will begin to emerge as teachers realize the potential that new and emerging social networking, multimedia and Web 2.0 technologies offer for their own professional and personal growth,

and as a result of this understanding, help their students take advantage of these tools in powerful, yet safe and ethical ways.

2. The classroom environment will shift from teacher-directed to student-directed.
3. Teachers will request more equipment, software and training.

In order for building and district administrators to track progress toward these goals, it will be necessary to create a process for monitoring and documenting them. Some standard measure or rubric will need to be adopted and used as a part of the teacher evaluation process. We will evaluate a variety of options and select one to implement.

#### **How will we sustain focus and momentum?**

Via the year-long professional development TABLET Program, teachers are being provided with up-to-date software and personal-use equipment for instructional and planning purposes. This project will induct its fourth group of one hundred teachers during the 09-10 school year. This program provides for day-to-day on-demand access which facilitates teachers' increased proficiency with technology. As teachers become more proficient with the tools of technology, they are more comfortable bringing them into their instructional practice, thereby increasing the likelihood of advancements in teaching, learning, and student achievement. In addition, the district has created a hardware model with recommended building and classroom hardware configurations based on grade level and/or subject area. This hardware model provides guidance to building administrators as they plan their yearly technology purchases.

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## **2.5 How Will You Be Using Technology To Improve Teaching and Learning In Mathematics?**

The goal of section 2.5 is to identify the major elements of your district's plans to use technology to enhance teaching and learning in Mathematics at the elementary, middle and secondary levels over the next three years.

The primary objective is that you provide a brief description of two or three broad-based practices being utilized by the majority of your district's teachers to use technology to improve teaching and learning at the elementary, middle and secondary levels. For example, if all or most of your fifth through seventh grade Mathematics teachers are requiring students to conduct internet research or produce multimedia presentations on a regular basis; this would qualify as a broad-based practice. But if only a fraction of your teachers are regularly using these tools in the classroom – do not portray it as a broad-based practice.

Please feel free to include information about significant technology integration practices which are, by nature, not broad-based. For example, if a high school science teacher is using simulation software to allow students to conduct virtual experiments which are too dangerous to replicate in the classroom or lab; please indicate this in the

Science curriculum area at the high school level only.

Using the ACOT Scale and the grid below, indicate your school's current level of effective technology integration in the Mathematics instructional process, as well as your target levels for improvement. If your responses fall between whole numbers, such as between 3.0 and 4.0, feel free to use .5 increments such as 3.5.

### Current Levels of Technology Integration in Mathematics

1.0 **Entry** - Learn the basics of using the new technology.

2.0 **Adoption** - Use new technology to support traditional instruction.

3.0 **Adaptation** - Integrate new technology into traditional classroom practice. Here, they often focus on increased student productivity and engagement by using word processors, spreadsheets, and graphics tools.

4.0 **Appropriation** - Focus on cooperative, project-based, and interdisciplinary work - incorporating the technology as needed and as one of many tools.

5.0 **Invention** - Discover new uses for technology tools, for example, developing spreadsheet macros for teaching algebra or designing projects that combine multiple technologies.

	Where are we now?	Where do we want to go?
Pre-K	N/A	N/A
K-2	2.0	3.0
3-4	2.5	3.5
5-7	3.0	4.0
8-10	2.0	3.0
11-12	3.0	4.0

### How will we get there?

1. Create a culture where technology is not seen as an add-on, but rather a learning tool, no less necessary than a pencil or a textbook. Examples of this include the use of Web 2.0 tools to facilitate collaboration within and beyond the classroom, the use of tablet PCs and wireless projectors in the delivery of content, the incorporation of video clips to support learning concepts, digital and video recordings of oral reading and speaking activities, etc. Student examples would be using Vernier Probes to model algebraic functions with data collection, and using Geometers Sketchpad software to build and investigate mathematical models, objects, figures, diagrams, and graphs.
2. Provide job-embedded professional development and staff training in support of this cultural shift via the TABLET Program and provide adequate staff to support this goal.
3. Continue the development of our district's eCurriculum Web site and the integration of the Ohio Technology Academic Content Standards via the curriculum revision process.
4. Leverage the LPDC process to encourage teacher research, testing and professional development initiatives for innovative new hardware and software applications.

### How will we know we're getting there?

1. A notable pedagogical shift will begin to emerge as teachers realize the potential that new and emerging social networking, multimedia and Web 2.0 technologies offer for their own professional and personal growth, and as a result of this understanding, help their students take advantage of these tools in powerful, yet safe and ethical ways.
2. The classroom environment will shift from teacher-directed to student-directed.
3. Teachers will request more equipment, software and training.

In order for building and district administrators to track progress toward these goals, it will be necessary to create a process for monitoring and documenting them. Some standard measure or rubric will need to be adopted and used as a part of the teacher evaluation process. We will evaluate a variety of options and select one to implement.

### How will we sustain focus and momentum?

Via the year-long professional development TABLET Program, teachers are being provided with up-to-date software and personal-use equipment for instructional and planning purposes. This project will induct its fourth group of one hundred teachers during the 09-10 school year. This program provides for day-to-day on-demand access which facilitates teachers' increased proficiency with technology. As teachers become more proficient with the tools of technology, they are more comfortable bringing them into their instructional practice, thereby increasing the likelihood of advancements in teaching, learning, and student achievement. In addition, the district has created a hardware model with recommended building and classroom hardware configurations

based on grade level and/or subject area. This hardware model provides guidance to building administrators as they plan their yearly technology purchases.

The Forest Hills Local School District provides professional development support in a multitude of ways. We have a district Instructional Technology Specialist that facilitates the TABLET program, coordinating synchronous and asynchronous collaborative learning environments with a goal of not only mentoring the participants in the "how-to" of the hardware and software tools, but also guiding teachers in examining their current instructional practice and helping them re-envision what they do in their classrooms, culminating in a learning environment more powerful and relevant to the students they teach. We also have an Educational Software Project Manager that assists in the training and implementation of all district software applications as well as individual building technology coordinators who serve as part-time technology integration support for their staff.

Other formats for technology professional development beyond the scope of our TABLET Program include our district Summer Technology Workshops, asynchronous meetings and training via our Moodle site and Elluminate! in addition to district-wide opportunities for collaboration and planning during our yearly November inservice day. Each of these technology PD opportunities supports curriculum goals by being presented in the context of core content areas and focusing on best instructional practice for the purpose of increasing student achievement.

Since the spring of 2009, all district professional development activities and participation have been documented via PDEXpress, a database that provides an online meeting request forms with an electronic approval process and a connection back to the human resources department for LPDC documentation. Staff members have individual accounts and can track the process of all professional development requests in addition to their completed activities.

## 2.6 How Will You Be Using Technology to Improve Teaching and Learning in Science?

The goal of section 2.6 is to identify the major elements of your district's plans to use technology to enhance teaching and learning in Science at the elementary, middle and secondary levels over the next three years.

The primary objective is that you provide a brief description of two or three broad-based practices being utilized by the majority of your district's teachers to use technology to improve teaching and learning at the elementary, middle and secondary levels. For example, if all or most of your fifth through seventh grade Science teachers are requiring students to conduct internet research or produce multimedia presentations on a regular basis; this would qualify as a broad-based practice. But if only a fraction of your teachers are regularly using these tools in the classroom – do not portray it as a broad-based practice.

Please feel free to include information about significant technology integration practices which are, by nature, not broad-based. For example, if a high school science teacher is using simulation software to allow students to conduct virtual experiments which are too dangerous to replicate in the classroom or lab; please indicate this in the Science curriculum area at the high school level only.

Using the ACOT Scale and the grid below, indicate your school's current level of effective technology integration in the Science instructional process, as well as your target levels for improvement. If your responses fall between whole numbers, such as between 3.0 and 4.0, feel free to use .5 increments such as 3.5.

### Current Levels of Technology Integration in Science

**1.0 Entry** - Learn the basics of using the new technology.

**2.0 Adoption** - Use new technology to support traditional instruction.

**3.0 Adaptation** - Integrate new technology into traditional classroom practice. Here, they often focus on increased student productivity and engagement by using word processors, spreadsheets, and graphics tools.

**4.0 Appropriation** - Focus on cooperative, project-based, and interdisciplinary work - incorporating the technology as needed and as one of many tools.

**5.0 Invention** - Discover new uses for technology tools, for example, developing spreadsheet macros for teaching algebra or designing projects that combine multiple technologies.

	Where are we now?	Where do we want to go?
Pre-K	N/A	N/A
K-2	2.0	3.0
3-5	3.0	4.0
6-8	3.0	4.0
9-10	2.5	3.5
11-12	2.5	3.5

### How will we get there?

1. Create a culture where technology is not seen as an add-on, but rather a learning tool, no less necessary than a pencil or a textbook. Examples of this include the use of Web 2.0 tools to facilitate collaboration within and beyond the classroom, the use of tablet PCs and wireless projectors in the delivery of content, the incorporation of video clips to support learning concepts, digital and video recordings of oral reading and speaking activities, etc. Student examples would be using Vernier Probes to sample air, water, and soil samples for an environmental study, and using Microsoft Excel to manipulate data for the creation of visual representations with a variety of graphs and charts.
2. Provide job-embedded professional development and staff training in support of this cultural shift via the TABLET Program and provide adequate staff to support this goal.
3. Continue the development of our district's eCurriculum Web site and the integration of the Ohio Technology Academic Content Standards via the curriculum revision process.
4. Leverage the LPDC process to encourage teacher research, testing and professional development initiatives for innovative new hardware and software applications.

### How will we know we're getting there?

1. A notable pedagogical shift will begin to emerge as teachers realize the potential that new and emerging social networking, multimedia and Web 2.0 technologies offer for their own professional and personal growth, and as a result of this understanding, help their students take advantage of these tools in powerful, yet safe and ethical ways.
2. The classroom environment will shift from teacher-directed to student-directed.
3. Teachers will request more equipment, software and training.

In order for building and district administrators to track progress toward these goals, it will be necessary to create a process for monitoring and documenting them. Some standard measure or rubric will need to be adopted and used as a part of the teacher evaluation process. We will evaluate a variety of options and select one to implement.

### How will we sustain focus and momentum?

Via the year-long professional development TABLET Program, teachers are being provided with up-to-date software and personal-use equipment for instructional and planning purposes. This project will induct its fourth group of one hundred teachers during the 09-10 school year. This program provides for day-to-day on-demand access which facilitates teachers' increased proficiency with technology. As teachers become more proficient with the tools of technology, they are more comfortable bringing them into their instructional practice, thereby increasing the likelihood of advancements in teaching, learning, and student achievement. In addition, the district has created a hardware model with recommended building and classroom hardware configurations based on grade level and/or subject area. This hardware model provides guidance to building administrators as they plan their yearly technology purchases.

The Forest Hills Local School District provides professional development support in a multitude of ways. We have a district Instructional Technology Specialist that facilitates the TABLET program, coordinating synchronous and asynchronous collaborative learning environments with a goal of not only mentoring the participants in the "how-to" of the hardware and software tools, but also guiding teachers in examining their current instructional practice and helping them re-envision what they do in their classrooms, culminating in a learning environment more powerful and relevant to the students they teach. We also have an Educational Software Project Manager that assists in the training and implementation of all district software applications as well as individual building technology coordinators who serve as part-time technology integration support for their staff.

Other formats for technology professional development beyond the scope of our TABLET Program include our district Summer Technology Workshops, asynchronous meetings and training via our Moodle site and



Illuminate! in addition to district-wide opportunities for collaboration and planning during our yearly November inservice day. Each of these technology PD opportunities supports curriculum goals by being presented in the context of core content areas and focusing on best instructional practice for the purpose of increasing student achievement.

Since the spring of 2009, all district professional development activities and participation have been documented via PDEXpress, a database that provides an online meeting request forms with an electronic approval process and a connection back to the human resources department for LPDC documentation. Staff members have individual accounts and can track the process of all professional development requests in addition to their completed activities.

## 2.7 How Will You Be Using Technology to Improve Teaching and Learning in Social Studies?

The goal of section 2.7 is to identify the major elements of your district's plans to use technology to enhance teaching and learning in Social Studies at the elementary, middle and secondary levels over the next three years.

The primary objective is that you provide a brief description of two or three broad-based practices being utilized by the majority of your district's teachers to use technology to improve teaching and learning at the elementary, middle and secondary levels. For example, if all or most of your fifth through seventh grade Social Studies teachers are requiring students to conduct internet research or produce multimedia presentations on a regular basis; this would qualify as a broad-based practice. But if only a fraction of your teachers are regularly using these tools in the classroom – do not portray it as a broad-based practice.

Please feel free to include information about significant technology integration practices which are, by nature, not broad-based. For example, if a high school science teacher is using simulation software to allow students to conduct virtual experiments which are too dangerous to replicate in the classroom or lab; please indicate this in the Science curriculum area at the high school level only.

Using the ACOT Scale and the grid below, indicate your school's current level of effective technology integration in the Social Studies instructional process, as well as your target levels for improvement. If your responses fall between whole numbers, such as between 3.0 and 4.0, feel free to use .5 increments such as 3.5.

### Current Levels of Technology Integration in Social Studies

- 1.0 **Entry** - Learn the basics of using the new technology.
- 2.0 **Adoption** - Use new technology to support traditional instruction.
- 3.0 **Adaptation** - Integrate new technology into traditional classroom practice. Here, they often focus on increased student productivity and engagement by using word processors, spreadsheets, and graphics tools.
- 4.0 **Appropriation** - Focus on cooperative, project-based, and interdisciplinary work - incorporating the technology as needed and as one of many tools.
- 5.0 **Invention** - Discover new uses for technology tools, for example, developing spreadsheet macros for teaching algebra or designing projects that combine multiple technologies.

	Where are we now?	Where do we want to go?
Pre-K	N/A	N/A
K-2	2.0	3.0
3-5	2.5	3.5
6-8	3.0	4.0
9-10	2.5	3.5
11-12	2.5	3.5

### How will we get there?

1. Create a culture where technology is not seen as an add-on, but rather a learning tool, no less necessary than a pencil or a textbook. Examples of this include the use of Web 2.0 tools to facilitate collaboration within and beyond the classroom, the use of tablet PCs and wireless projectors in the delivery of content, the incorporation of video clips to support learning concepts, digital and video recordings of oral reading and speaking activities, etc. Student examples include using Google Earth to plot the path of early explorers' travels, and using XTimeline to create and share timelines that incorporate text, images, and video clips.
2. Provide job-embedded professional development and staff training in support of this cultural shift via the



TABLET Program and provide adequate staff to support this goal.

3. Continue the development of our district's eCurriculum Web site and the integration of the Ohio Technology Academic Content Standards via the curriculum revision process.
4. Leverage the LPDC process to encourage teacher research, testing and professional development initiatives for innovative new hardware and software applications.

#### **How will we know we're getting there?**

1. A notable pedagogical shift will begin to emerge as teachers realize the potential that new and emerging social networking, multimedia and Web 2.0 technologies offer for their own professional and personal growth, and as a result of this understanding, help their students take advantage of these tools in powerful, yet safe and ethical ways.
2. The classroom environment will shift from teacher-directed to student-directed.
3. Teachers will request more equipment, software and training.

In order for building and district administrators to track progress toward these goals, it will be necessary to create a process for monitoring and documenting them. Some standard measure or rubric will need to be adopted and used as a part of the teacher evaluation process. We will evaluate a variety of options and select one to implement.

#### **How will we sustain focus and momentum?**

Via the year-long professional development TABLET Program, teachers are being provided with up-to-date software and personal-use equipment for instructional and planning purposes. This project will induct its fourth group of one hundred teachers during the 09-10 school year. This program provides for day-to-day on-demand access which facilitates teachers' increased proficiency with technology. As teachers become more proficient with the tools of technology, they are more comfortable bringing them into their instructional practice, thereby increasing the likelihood of advancements in teaching, learning, and student achievement. In addition, the district has created a hardware model with recommended building and classroom hardware configurations based on grade level and/or subject area. This hardware model provides guidance to building administrators as they plan their yearly technology purchases.

The Forest Hills Local School District provides professional development support in a multitude of ways. We have a district Instructional Technology Specialist that facilitates the TABLET program, coordinating synchronous and asynchronous collaborative learning environments with a goal of not only mentoring the participants in the "how-to" of the hardware and software tools, but also guiding teachers in examining their current instructional practice and helping them re-envision what they do in their classrooms, culminating in a learning environment more powerful and relevant to the students they teach. We also have an Educational Software Project Manager that assists in the training and implementation of all district software applications as well as individual building technology coordinators who serve as part-time technology integration support for their staff.

Other formats for technology professional development beyond the scope of our TABLET Program include our district Summer Technology Workshops, asynchronous meetings and training via our Moodle site and Elluminate! in addition to district-wide opportunities for collaboration and planning during our yearly November inservice day. New for the 2009-2010 school year, each teacher and district administrator will have a subscription to PD360, an excellent online source of over 100 high quality videos for teachers on professional development topics including classroom management, differentiation, assessment, Marzano's instructional strategies, ELL, and many others. The School Improvement Network site includes professional development study group guides, and other in-school and in-district networking opportunities. Teachers will have Web-based access to these great videos at any time. Each of these technology PD opportunities supports curriculum goals by being presented in the context of core content areas and focusing on best instructional practice for the purpose of increasing student achievement.

Since the spring of 2009, all district professional development activities and participation have been documented via PDEXpress, a database that provides an online meeting request forms with an electronic approval process and a connection back to the human resources department for LPDC documentation. Staff members have individual accounts and can track the process of all professional development requests in addition to their completed activities.

## **2.8 How Are You Teaching Students About Technology Itself?**

The goal of Phase 2.8 is for district technology planning staff to describe your district's efforts to teach students what they need to know and be able to do in order to meet Ohio's technology content standards.

**IMPORTANT NOTE:** Phase 2.8 is about technology as its own academic content standard and focuses on specific technology courses.

Phase 2.8 is the place to indicate what technology instruction you are offering at the elementary, middle and secondary levels. Examples of these "pure technology" courses would include, but are not limited to: career technology, library media, keyboarding, multi-media or digital video production, web page authoring, network administration, etc.

As you are considering how you will teach the technology academic content standards, consider reviewing your Comprehensive Continuous Improvement Plan (CCIP) goals and strategies.

### Activity

Using the Apple Classroom of Tomorrow (ACOT) Scale and the grid below, indicate your school's current level of effective technology integration specifically concerning technology courses, as well as your target levels for improvement. If your responses fall between whole numbers, such as between 3.0 and 4.0, feel free to use .5 increments such as 3.5.

### Instructional Integration

**1.0 Entry** - Learn the basics of using the new technology.

**2.0 Adoption** - Use new technology to support traditional instruction.

**3.0 Adaptation** - Integrate new technology into traditional classroom practice. Here, they often focus on increased student productivity and engagement by using word processors, spreadsheets, and graphics tools.

**4.0 Appropriation** - Focus on cooperative, project-based, and interdisciplinary work - incorporating the technology as needed and as one of many tools.

**5.0 Invention** - Discover new uses for technology tools, for example, developing spreadsheet macros for teaching algebra or designing projects that combine multiple technologies.

	Where are we now?	Where do we want to go?
Pre-K	N/A	N/A
K-2	2.0	3.0
3-5	3.0	4.0
6-8	3.5	4.5
9-10	3.0	4.0
11-12	3.0	4.0

### How will we get there?

1. Create a culture where technology is not seen as an add-on, but rather a learning tool, no less necessary than a pencil or a textbook. Examples of this include the use of Web 2.0 tools to facilitate collaboration within and beyond the classroom, the use of tablet PCs and wireless projectors in the delivery of content, the incorporation of video clips to support learning concepts, digital and video recordings of oral reading and speaking activities, etc. Student examples would be the utilization of the Microsoft live@edu suite to access free hosted email, calendars, online workspaces, mobile alerts, document sharing, blogs, videoconferencing, mobile access and address books; participation in our district's Cisco Networking Academy, a comprehensive e-learning program that enables students to develop valuable information and communication technology skills for increased access to opportunities in the global economy; and participation in elective courses utilizing Adobe Creative Suite 4, where they produce highly innovative print, Web, video, mobile, and rich media projects.
2. Provide job-embedded professional development and staff training in support of this cultural shift via the TABLET Program and provide adequate staff to support this goal.
3. Continue the development of our district's eCurriculum Web site and the integration of the Ohio Technology Academic Content Standards via the curriculum revision process.
4. Leverage the LPDC process to encourage teacher research, testing and professional development initiatives for innovative new hardware and software applications.

### How will we know we're getting there?

1. A notable pedagogical shift will begin to emerge as teachers realize the potential that new and emerging social networking, multimedia and Web 2.0 technologies offer for their own professional and personal growth, and as a result of this understanding, help their students take advantage of these tools in powerful, yet safe

and ethical ways.

2. The classroom environment will shift from teacher-directed to student-directed.
3. Teachers will request more equipment, software and training.

In order for building and district administrators to track progress toward these goals, it will be necessary to create a process for monitoring and documenting them. Some standard measure or rubric will need to be adopted and used as a part of the teacher evaluation process. We will evaluate a variety of options and select one to implement.

#### **How will we sustain focus and momentum?**

Via the year-long professional development TABLET Program, teachers are being provided with up-to-date software and personal-use equipment for instructional and planning purposes. This project will induct its fourth group of one hundred teachers during the 09-10 school year. This program provides for day-to-day on-demand access which facilitates teachers' increased proficiency with technology. As teachers become more proficient with the tools of technology, they are more comfortable bringing them into their instructional practice, thereby increasing the likelihood of advancements in teaching, learning, and student achievement. In addition, the district has created a hardware model with recommended building and classroom hardware configurations based on grade level and/or subject area. This hardware model provides guidance to building administrators as they plan their yearly technology purchases.

The Forest Hills Local School District provides professional development support in a multitude of ways. We have a district Instructional Technology Specialist that facilitates the TABLET program, coordinating synchronous and asynchronous collaborative learning environments with a goal of not only mentoring the participants in the "how-to" of the hardware and software tools, but also guiding teachers in examining their current instructional practice and helping them re-envision what they do in their classrooms, culminating in a learning environment more powerful and relevant to the students they teach. We also have an Educational Software Project Manager that assists in the training and implementation of all district software applications as well as individual building technology coordinators who serve as part-time technology integration support for their staff.

Other formats for technology professional development beyond the scope of our TABLET Program include our district Summer Technology Workshops, asynchronous meetings and training via our Moodle site and Elluminate! in addition to district-wide opportunities for collaboration and planning during our yearly November inservice day. Each of these technology PD opportunities supports curriculum goals by being presented in the context of core content areas and focusing on best instructional practice for the purpose of increasing student achievement.

Since the spring of 2009, all district professional development activities and participation have been documented via PDEXpress, a database that provides an online meeting request forms with an electronic approval process and a connection back to the human resources department for LPDC documentation. Staff members have individual accounts and can track the process of all professional development requests in addition to their completed activities.

## Technology Policy, Leadership and Administration

### 3.1 Analyzing District Education Technology Policies

**Awareness** - Policy is not in place; little or no understanding of importance of policy

**Adoption** - Traditional policies are in place; lack of consistent use

**Exploration** - New/updated policies are being researched

**Transformation** - Policies support high performing learning environments

	Where are we now?	Where do we want to go?
A.Electronic network linking district with other stakeholders for information exchange, collaboration and distance education	Exploration	Transformation
B.District wide program providing data or administrative systems to schools (e.g., fiscal databases, student assessment results)	Exploration	Transformation
C.Technology-related facilities design, equipment and software	Exploration	Transformation
D.Technology acquisition and standards	Exploration	Transformation
E.Research and evaluation of educational technology initiatives	Exploration	Transformation
F.Development and dissemination of educational technology devices, applications and approaches	Transformation	Transformation
G.District funding for educational technology	Transformation	Transformation
H.Equity and access to technology	Exploration	Transformation

#### How do we get there?

A.

STRATEGY: Create SharePoint Learning Gateway accessible to staff/students/parents for unified communications, document storage, and online learning.

IMPLEMENTATION: Purchase hardware/software/licenses; Develop site; Provide training; Collect feedback; Revise/update site

PROFESSIONAL DEVELOPMENT (PD): Training designed by District Technology Coordinator (DTC), Instructional Technology Specialist (ITS), and Educational Software Project Manager (ESPM) in conjunction with all district admin departments and conducted by building technology coordinators (BTC); Train one module at a time; Provide guided practice; Provide ongoing support

B.

STRATEGY: Select data warehouse

IMPLEMENTATION: Select product; Configure product/populate with data; Train district admins and BTCs; Use BTCs to train staff; Offer training for parent portal; Provide support

PD: Training for admins and BTCs provided by software company; Staff training provided by BTCs; Parent training provided by BTCs; Ongoing support provided by ESPM

C.

STRATEGY: Develop process for requesting/purchasing new technology-related facilities design, equipment, software

IMPLEMENTATION: Select committee; Draft policy for making request; Create criteria for evaluation of proposal and process for purchasing new products; Seek Board approval; Provide training

PD: Training designed by DTC, ITS, and ESPM and conducted by BTC as needed

D.

STRATEGY: Revise FHSD Hardware Model

IMPLEMENTATION: Recall 06-07 committee; Evaluate 06-07 model for relevancy in light of new tech and current budget; Update model; Develop process for requesting purchase; Introduce model and process to staff

PD: New model/process presented to district administrators/their secretaries by DTC, ITS, and ESPM; Introduction to new model/process presented to instructional staff by ITS and ESPM

E.

STRATEGY: Complete 06-11 TABLET Program

IMPLEMENTATION: Select 09-10 and 10-11 cadre; Purchase equipment; Provide hardware training; Maintain Moodle site

PD: Provide ITS to support program; Provide introductory hardware training; Provide synchronous PD via monthly meetings; Provide asynchronous PD via access to Moodle site

F.

STRATEGY: Coordinate with LPDC for "Each One Teach One" program where staff request tech equipment/software/services to pilot for district in exchange for completing evaluation and teaching sessions on their product during Summer Technology Workshop.

IMPLEMENTATION: Design application process; Create rubric for evaluation of application; Determine budget source; Define LPDC PDU structure; Select participants; Purchase equipment; Collect evaluation; Award LPDC PDUs

PD: Present during staff meetings; Technology Department will facilitate selection/purchase of products, staff member's participation in Summer Technology Workshop, and documentation tool for completion of evaluation process; LPDC will facilitate licensure PDUs

G.

STRATEGY: Outsource tech support to VARtek TMS to lock technology hardware and infrastructure costs for next five years.

IMPLEMENTATION: Determine replacement cycle for hardware; Design infrastructure upgrade plan for 09-10 school year; Develop strategy for migration; Re-Image computers

PD: Introduce employees to new VARtek staff; Define new tech model for staff; Outline timeline for infrastructure/migration work; Train staff on new helpdesk system; Train staff to access documents/files in Windows; Train staff to access applications in Windows

H.

STRATEGY: Implement Access21 Program

IMPLEMENTATION: Continue research of AAAL implementation; Purchase netbooks for district; Coordinate with vendor to provide student-purchased devices; Plan PD for staff; Plan student summer boot camp; Increase tech support to accommodate new devices

PD: Hold ongoing conversations with 7-12 teachers regarding program; Provide year-long training to 7-12 staff; Provide training for building admins; Provide training to support staff

### **How do we know we are getting there?**

For each of the policy recommendations outlined above, a development team will be created. This team will include a Project Manager and district-appointed staff members. The Project Manager will be charged with setting a timeline for completion of the assigned policy and with keeping the process of policy development on track and moving forward. The Project Manager will collaborate with the team's district-appointed staff members and will report directly to the District Technology Coordinator via monthly meetings. At these meetings the Project Manager and the District Technology Coordinator will discuss the policy development process and will work together to fine-tune the content and language of the policy. When complete, the District Technology Coordinator will present the final policy language and documentation to the Director of Instructional Services. If approved, the Director of Instructional Services will share the proposed policy with the Central Office Team and then present the recommended policy to the Board of Education for formal adoption. This process provides for a variety of checkpoints that will allow monitoring of progress and ample opportunities to guide or redirect content development if necessary.

### **How do we sustain the focus and momentum?**

The Forest Hills School District will support the policy development process by providing leadership and guidance to the educational community. It will also accommodate the professional meetings necessary for staff to research, collaborate, and create new policy. Ongoing research and study via the TABLET Program, participation in the Powerful Learning Practices regional PD opportunity, preparation for the introduction of Access21, and regular collaboration with our Building Technology Coordinators will provide the policy development teams with up-to-date information on best practices and current understandings with regard to policies being created or revised.

Once adopted, technology policies will undergo a yearly audit. This audit will begin by soliciting staff feedback via a survey tool. The data collected will help district leadership understand how the policy is affecting district staff

and whether the policy needs to be reviewed. If a formal review of a policy is warranted, this will be completed by the district Directors and facilitated by the District Technology Coordinator.

### 3.2 Analyzing District Leadership

**Awareness** - These administrators do not use technology. An expectation to use technology with students and staff is not expressed nor do the administrators support the staff in the use of technology.

**Adoption** - Administrators have access to technology but don't use it on a comprehensive basis. Educators in the building are expected to use the technology but not in a powerful way to improve student achievement. Leaders support staff in developing technology skills.

**Exploration** - Leaders encourage and support educators in the use of technology, but the use may not be pervasive throughout the system. Administrators use technology and see some benefit.

**Transformation** - Leadership provides strong vision encompassing all aspects of educational technology. Technology is vital to administrators and is utilized in innovative ways on a daily basis. Administrators fully understand how to use the tools effectively in the classroom and to manage education.

	Where are we now?	Where do we want to go?
A. Instructional leadership, assessment and curriculum	Exploration	Transformation
B. Competencies/Standards (e.g. ISTE NETS-A)	Adoption	Transformation
C. Advocacy for technology	Exploration	Transformation
D. Measures and accountability for effective use	Exploration	Transformation
E. Role model in the use of technology	Adoption	Transformation
F. Professional development	Exploration	Transformation
G. Support for educational technology	Exploration	Transformation
H. Professional practice	Exploration	Transformation

#### How do we get there?

GOAL: Promote a standards-based curriculum infused with authentic technology integration

STRATEGY: Integrate Ohio Academic Technology Standards and supporting content with district curriculum and present in an online format

IMPLEMENTATION: Design an eCurriculum Web site enabling Curriculum Department Administrators to display curriculum benchmarks and indicators in an environment where shared content can be organized and accessed by staff

GOAL: Promote the development of contemporary technology skills necessary for success in a 21st Century world

STRATEGY: Provide district administrators with the hardware and software tools as well as the training necessary to model 21st century teaching and learning practices while interacting with district staff

IMPLEMENTATION: Encourage administrative participation in the TABLET project

GOAL: Provide an integrated system of information storage, management, and reporting to enable data-driven decision making

STRATEGY: Administrators research, view demos, take advantage of software trial periods, and communicate findings regarding various data management systems

IMPLEMENTATION: Select a data warehouse that has the capacity to integrate with other information systems already owned or accessed by the district

GOAL: Improve communication and collaboration within the school district as well as with our families, our community, and the world

STRATEGY: Secure funding and development support for SharePoint portal

IMPLEMENTATION: Provide Forest Hills Learning Gateway and appropriate content that will be accessible to staff, students and parents for the purpose of unified communications, document storage, and online learning

GOAL: Create a 21st century learning environment that provides access to the tools of learning anytime and anywhere

STRATEGY: Use a variety of Web 2.0 tools to enable learning beyond walls and time

**IMPLEMENTATION:** Utilize a SharePoint Learning Gateway, Moodle, and Elluminate! to provide unified communication tools such as eMail, blogs, wikis, and online classroom environment.

#### **How do we know we are getting there?**

Progress toward our goals may be monitored both informally and formally. Informal methods include casual conversation with staff, students or parents; information conveyed at meetings with district leadership; feedback provided during monthly meetings with building technology coordinators. The formal method of progress monitoring involves incorporating data collection prescribed by elements of this technology plan into the yearly technology satisfaction survey conducted by our technology management service VARtek.

#### **How do we sustain the focus and momentum?**

The Forest Hills Local School District supports the use of technology to achieve leadership goals by providing district leaders with access to professional development opportunities such as participation in the TABLET Program and Powerful Learning Practices; the integration of technology standards and the creation of content for the eCurriculum site; participation in a variety of conferences such as eTech Ohio , SOITA and others according to discipline.

Participation alongside district peers provides a valuable opportunity for modeling an appropriate desire to learn more about the use of technology in education and ways in which adept technology integration can shift the focus of learning from the instructor to the learner. It also provides an opportunity for district leadership to gather informal feedback from staff members that can guide future development and revision of technology goals and policy.

### **3.3 Technology Leader/Coordinator Time Commitments**

	<b>Where are we now?</b>	<b>Where do we want to go?</b>
Strategic/Project/Action Planning	3%	20%
Acquisitions/Procurement	20%	5%
Deployment/Implementation of Technology	5%	0%
Maintenance & Repair	0%	0%
End-user Technical Support & Training	10%	3%
Curriculum Alignment & Instructional Integration	20%	20%
Fiscal Management/Grant Applications	20%	10%
Superintendent Cabinet/Executive/Board Meetings	2%	2%
Tech Staff Development & Management	10%	10%
Policy Development, Monitoring & Enforcement	5%	20%
Evaluating New/Emerging Technologies	5%	10%
Other	0%	0%
<b>Total</b>	<b>100%</b>	<b>100%</b>

#### **Other (please describe):**

N/A

#### **How will we get there?**

The role of the FHSD Technology Coordinator is shifting from one focused more on curriculum department goals and the management of technology support staff, to one focused on providing a broader, more integrated vision for district-wide technology utilization. This broader perspective will allow the Technology Coordinator to provide insight and guidance to various administrative departments, creating a more unified, coordinated approach to the delivery of information and technology services.

Outsourcing technology management services to VARtek, a necessary cost-saving measure after the defeat of our May 5, 2009 levy, will provide some release from the management of the technology replacement cycle. This outsourcing contract will also provide for a new infrastructure during the 09-10 school year. It is anticipated that this improvement will also reduce end-user technical support and training requests that frequently flow through the Technology Coordinator. The time gains provided by this outsourcing decision will allow the Technology

Coordinator a greater opportunity to pursue district-level strategic planning and project development with key director-level leadership throughout the district.

**How will we know we are getting there?**

There will be different methods and measurements used to monitor the Technology Coordinator's progress in achieving the previously mentioned goals. The Director of Instructional Services is charged with supervising the district Technology Coordinator. Regular meetings with this director will provide opportunity for collaboration and informal feedback. Formal feedback will be made via the district's standard evaluation process for all district administrators. The district Technology Coordinator will also receive informal feedback from various administrative directors regarding visioning, research, management and implementation of projects key to the success of their departments.

Additional methods for collecting data and gathering feedback include casual conversation with staff, students or parents; information conveyed at meetings with building leadership; feedback provided during monthly meetings with building technology coordinators and incorporating data collected through a yearly technology satisfaction survey that will be conducted by our technology management service VARtek.

**How will we sustain focus and momentum?**

The district Technology Coordinator will meet monthly with district administrative directors. This process will help to improve communication between the various departments and technology and to gather relevant information that will set the direction for administrative and instructional technology services associated with application delivery, voice and data communications in addition to curriculum and productivity tools.

The district Technology Coordinator will meet with building principals, building technology coordinators, and key teacher representatives at quarterly Technology Summit meetings. The Technology Coordinator will also meet with district Media Specialists regularly, in support of district Information Services goals.

The district Technology Coordinator will be provided with opportunities to participate in ongoing professional development initiatives such as the TABLET Project, Powerful Learning Practices, and Access21 as well as leading the effort to integrate the Ohio Academic Technology Standards into the district curriculum.



## Technology Infrastructure, Management and Support

### 4.1 Networking, Internet & Telecommunications

This section is designed to speak to the network/telecommunications infrastructure necessary to support the technologies in use by the district for administrative and instructional computing. These uses range from EMIS reporting, shared administrative applications, video on demand (VOD), voice over IP (VoIP) telephony, thin client server access, Internet research and others.

With a wide range of new, converging or expanding services relying heavily on a converged network, capacity planning is imperative to the success of subsequent strategies that use the network. For example, a network using thin client connectivity to servers, with heavy Internet access, file and print services, as well as voice over IP, will need careful network capacity planning to introduce video streaming technologies.

#### ACTIVITY 1:

Complete the portfolio of network services and telecommunications services provided. Indicate any changes that you plan to introduce. Use the following scale in answering "Where are we now?"

- **None** - This technology does not currently reside on the network.
- **Some** - There are pieces of this technology residing on the network. It does not exist in all buildings or only in certain places.
- **Many** - This technology is pervasive throughout the district and/or building.

Use the following scale in answering "Where do we want to go"

- **Decrease** - We plan to decrease this technology on the network.
- **No Change** - We plan to maintain the level of technology on the network.
- **Researching** - We are investigating if we want to implement this technology on the network or if we want to increase or decrease this technology on the network.
- **Increase** - We plan to increase this technology on the network.

	Where are we now?	Where do we want to go?
Thin/Network Clients	Some	Increase
File and Print Sharing	Many	Increase
Internet Traffic	Many	Increase
Video Conferencing (IP)	Some	Researching
Video Conferencing (ATM)	None	No Change
Video On-Demand (local building/district server)	Some	Researching
Video Streaming (Internet)	Many	Increase
Voice Communications - Voice over IP	None	Increase
Voice Communications - Centrex/PBX	Many	Decrease
Remote Access (Dial-up/VPN) to School Resources	Some	Increase
Wireless	Many	Increase
Email	Many	Increase
Enterprise/Shared Applications (e.g., online grade book)	Some	Increase

#### ACTIVITY 2:

Discuss the impact of the network and telecommunications services activity above on the bandwidth requirements of the LAN, WAN and Internet connection. Record the impact on bandwidth below.

	What is the current impact?
LAN Bandwidth	Increase
WAN Bandwidth	Increase
Internet Bandwidth	Increase
Telephone Circuits	Decrease

### How will we get there?

A technology needs analysis was conducted in December, 2008 by VARtek K-12 Managed Technology. As a result of this analysis, it was determined that the cabling infrastructure throughout the district varied in terms of reliability. Most of the buildings were wired in the early to mid-90s during the state SchoolNet program. It was also determined that the data closets were in need of updates including switches and general clean-up.

More focus needs to be given to electrical capacity, server structure, back-up and restore procedures, and the structure of the wireless networks throughout all of the buildings. The district currently uses Novell Netware and ZenWorks version 6. It was recommended that a migration to a Windows-based server platform be considered in order to take advantage of industry trends in voice and data communications as well as newer, lower-cost technology options.

It was determined through our technology analysis that the current phone system was outdated and functioning at its maximum capacity (no ability to provide phone service to any classrooms). This phone system needs to be replaced with either a newer, more modern PBX system that will allow for an increased number of lines or the network needs to be upgraded to allow for the implementation of VoIP and other unified messaging services.

For the district to be able to achieve its technology goals while at the same time reduce costs, an infrastructure upgrade project is paramount. This project should include servers, switches, cabling, and a server operating system migration. Without an infrastructure upgrade, the district will find it more difficult (or impossible) to accomplish technology goals such as home access, network security, consistent look and feel for the users' experience, Voice over IP phone system, document storage/retrieval and video distribution over the network.

### How will we know we are getting there?

The Technology Department will begin to utilize a quarterly newsletter to inform and communicate progress toward meeting networking and telecommunications goals, in addition to informing the staff of relevant curriculum and professional development opportunities.

Data collection for the purpose of measuring district progress toward the previously mentioned goals will be collected via a yearly Web-based survey administered by VARtek. The survey will be posted for several weeks near the end of the school year, and will provide feedback for specific end-user indicators. In addition, yearly listening sessions with central office and building administrators, secretaries and building technology coordinators will be conducted to gather data and feedback regarding technology services throughout the district.

### How will we sustain focus and momentum?

VARtek Management Services will provide a Network Engineer, a Project Manager, and appropriate network monitoring software to the district as part of their contracted services. Ongoing meetings with this VARtek team will enable the district to monitor network use and the network's capacity to meet the needs of our educational objectives. By having a dedicated Project Manager working in coordination with a Network Engineer, the district is well-positioned to plan and implement any necessary changes to the network due to a shift in utilization.

## 4.2 Access to Technology

**None** - This technology does not exist in the building(s) and/or district.

**Some** - This technology is in the building(s) and district, but there are only a few in each location.

**Pervasive** - This technology is an integral part of the building(s) and/or district.

	Where are we now?	Where do we want to go?
Computer to Teacher Ratio (1:n)	1:1	1:1
Computer to Student Ratio (1:n)	1:3	1:2
Peripherals (e.g. scanner, digital camera)	Pervasive	Pervasive
Emerging Technologies	Middle adopter	Middle adopter
Assistive and adaptive hardware (e.g. Intellikeys, Alpha Smart) and specialized software	Some	Some

### How will we get there?

A technology needs analysis was conducted in December, 2008 by VARtek K-12 Managed Technology. One component of this analysis was the collection of data with regard to technology equipment in the district. Currently, Forest Hills has 1456 desktop computers, 524 staff notebooks or tablet PCs, and 1119 notebooks housed on carts for student use. This is equivalent to 3099 systems in the district. Of the 3099 systems, only 151 (5%) are aged six years or older, placing Forest Hills in the top 5% of districts regionally in terms of newness of equipment. The district has made a commitment to move to a single platform by phasing out the Apple/Mac systems and replacing them with PCs. We currently have only 654 Apple/Mac systems remaining (21%).

Forest Hills currently enjoys a 1:3 student to computer ratio. It is critical to the successful integration of technology that this ratio be maintained or improved. In partnering with VARtek, the district has secured a guaranteed six-year replacement cycle for all current desktop computers and a five-year replacement cycle for all current portable devices. One of the advantages of outsourcing technology management is that the cost for this replacement cycle is evenly distributed over the five-year contract period. Another advantage afforded through our partnership with VARtek is their ability to provide improved service to our staff and students at a reduced cost.

Partnering with VARtek will increase our ability to take advantage of new and emerging technologies that have been successfully piloted by other school districts that they serve. The introduction of N-Computing virtual desktops will save the district money and will increase student access to technology. The incorporation of Asus Netbooks into the replacement cycle will provide greater access to computers for students and will also resolve the limited power/no time for recharging issue that has consistently plagued our district since the influx of laptop carts a few years ago.

The district is developing a program (Access21) to increase student access to technology at the secondary level. A small pilot of this program is planned in each high school for the 2009-2010 school year. The pilot will provide 30 netbook computers for each high school to be utilized by selected staff members who are willing to provide ongoing feedback to the technology and curriculum departments. Key elements that the district is interested in understanding include:

1. Is the smaller form-factor of a netbook a hindrance to its integration in an instructional setting?
2. Is the battery-life of a netbook adequate to keep it operational throughout an entire school day?
3. Is the lack of a CD/DVD-ROM drive a negative or a non-issue for the user and instructor?
4. How does daily student access to a computing device change the instructional focus?
5. How does daily student access to a computing device change student participation and level of engagement?
6. How does daily student access to a computing device affect instructional planning?

### How will we know we are getting there?

The Forest Hills Local School District will utilize the FHSD Hardware Model created in the 2006-2007 school year to plan, procure, and upgrade technology. While this model will undergo revision during 2010-2011, it is not anticipated that there will be a major shift in the plan's basic structure. It is hoped that the data collected from the 2009-2010 evaluation pilot of Access21 will influence the revision of the FHSD Hardware Model by indicating whether to focus procurement on netbooks, thereby increasing student access to technology, or whether the original model developed around laptop carts is ideal.

### How will we sustain focus and momentum?

The Forest Hills Local School District will incorporate three revision strategies to ensure the fulfillment of future technology needs in support of students and teachers. First, the technology department will forge an ongoing cooperative relationship with the VARtek team in order to evaluate the health of the network and server environment in the context of typical teaching and learning activities that are taking place in our schools. Next, the Technology Department will collaborate with the Curriculum and Student Services departments to assess

needs and plan for the future. Finally, VARtek will offer a yearly Web-based survey administered to all district staff. The survey will be posted for several weeks near the end of the school year, and will provide feedback for specific end-user indicators. In addition, yearly listening sessions with central office and building administrators, secretaries and building technology coordinators will be conducted to gather data and feedback regarding technology services throughout the district.

The Forest Hills Local School District will continue building capacity within the organization for the implementation of future technology. Staff induction in the TABLET Program and participation in the Powerful Learning Practices will develop technology leadership at both the district and building level. Partnering with VARtek will provide the stable network services and consistent technical support that will enable staff members to comfortably expand their technology and integration knowledge base.

### 4.3 Stakeholder Access to Educational Information & Applications

1. **None:** Our organization does not have this type of electronic system. We maintain paper records.
2. **Minimal:** Our organization utilizes some electronic documents to manage these systems and processes such as spreadsheets or word processor.
3. **Adequate:** Our organization uses database software to manage these systems and documents.
4. **Advanced:** Our organization shares this type of information using industry-adopted data standards and practices (e.g. SIF, XML-Web Services or EDI).

#### Tool

	Where are we now?	Where do we want to go?
Student Information Services	3 - Adequate	4 - Advanced
Instructional Applications	3 - Adequate	4 - Advanced
Data Analysis & Reporting	2 - Minimal	4 - Advanced
Grade Book	3 - Adequate	4 - Advanced
Library Automation	4 - Advanced	4 - Advanced
Facilities Management	2 - Minimal	4 - Advanced
Voice Telephony	1 - None	4 - Advanced
Human Resources & Financial Management	3 - Adequate	4 - Advanced
Network Account Management	3 - Adequate	4 - Advanced
Transportation	4 - Advanced	4 - Advanced
Food Services	4 - Advanced	4 - Advanced

#### How will we get there?

1. Student Information Services: The district is currently using DASL and is awaiting the SIF capabilities that are planned for this Web-based application. It is believed that the district is not utilizing DASL to its fullest capacity, so providing professional development opportunities for all staff will be vital to its proper implementation.
2. Instructional Applications: The Curriculum Department recently purchased Study Island K-12 to support student learning in areas assessed by Ohio Achievement Tests. This subscription includes access to benchmark tests that allow teachers to evaluate student learning and provide appropriate remediation opportunities. Study Island personnel will provide training for district administrators and building technology coordinators. Building technology coordinators will then provide training for their staff.
3. Data Analysis & Reporting: The district intends to purchase a data warehouse Web-based application in the near future. Access to this database will enhance the instructional process as teachers drill down to benchmark and indicator level for each student. The software will also help district and individual buildings or teachers identify trends in their student population.
4. Grade Book: While some elementary schools allow their teachers to utilize a fee-based online grade book of their choosing, there is no district-wide application provided for recording grades or allowing parental access to elementary student progress. A FileMakerPro database is currently used to record and print elementary report cards. The three secondary schools use Progress Book, a Web-based grade book program that links to our student information service and to an online communication program.
5. Library Automation: Last year, FHSD moved from a stand-alone automated circulation system to a Web-based, integrated library system.
6. Facilities Management: The maintenance department uses an online ticketing program to request/schedule service. The Director of Business Operation uses a desktop program that schedules facilities throughout the

district. It is hoped that facilities scheduling will be moved to district Outlook environment in order to facilitate scheduling of various district physical locations and resources.

7. Voice Telephony: FHSD has a digital PBX phone system that is operating at full capacity. The district would like to investigate implementation of VoIP telephony upon completion of infrastructure upgrade and migration from Novell to Windows.

8. Human Resources: The Human Resources department uses a FileMaker Pro database to track personnel information. They also use a Web-based FBI fingerprint evaluation system to perform mandatory background checks.

9. Financial Management: The Treasurer's Office currently uses our ITC's USAS and USPS Web-based applications to perform operational tasks.

10. Network Account Management: Upon completion of our district migration from Novell to Windows, all network accounts will be managed through Active Directory services.

11. Transportation: The Transportation Department uses Edulog, a SIF compliant software that designs schedules, adds and relocates bus stops, creates and changes runs and routes, and adjusts pick-up, drop-off, and travel times.

12. Food Service: All district cafeterias are using a SIF compliant, computerized management system.

13. Special Education: FileMakerPro is used to maintain IEPs for gifted and special education students. The Student Services department is using an IEP support application in Progress Book to fulfill state reporting requirements.

14. Notification system: The district provides emergency notification through AlertNow, a Web-based service that delivers voice, e-mail and emergency SMS messages at a rate up to two million per hour.

It is hoped that, at some point during this tech planning cycle, the district will develop a SharePoint Learning Gateway to integrate some of the information management systems not

#### **How will we know we are getting there?**

The FHSD technology department has many opportunities to gather feedback that can be used to evaluate the effectiveness of new or enhanced system implementations. Standing meetings with the Curriculum and Student Services departments, the Building Technology Coordinators, and Media Specialists/eCoaches allow for adequate collaboration to evaluate technology initiatives. The bi-annual BETA survey as well as the VARtek end-of-year survey are also useful tools for soliciting data. The district is looking for a level of satisfaction from end-users that indicates that new system enhancements are satisfactory.

#### **How will we sustain the focus and momentum?**

All efforts will be made to select various information systems that are SIF compliant so that redundant data entry will be substantially reduced. It is essential to maintain a robust infrastructure in order to facilitate high-level functioning of all systems. Moving to a one platform computer system will strengthen all systems. Providing ample support, adequate communication of procedures and policies, and adequate professional development will help sustain momentum.

## **4.4 Educational Software**

**Never** - When selecting educational software, this process never occurs.

**Rarely** - When selecting educational software, occasionally this process is followed.

**Sometimes** - When selecting educational software, we typically follow and/or incorporate this process.

**Always** - When selecting educational software, this process is always followed and/or incorporated.

#### **Selection Processes**

	<b>Where are we now?</b>	<b>Where do we want to go?</b>
Requirements gathering, feature/fit analysis to goal	Sometimes	Always
Professional development planning for end users and support personnel	Sometimes	Always
Criteria for evaluation developed - including alignment to ACS and curriculum	Always	Always
Evaluation of demo copies	Always	Always
Implementation pilots	Always	Always
Replacement cycle (upgrade, retire, new)	Sometimes	Always
System requirements / technical and operational support	Sometimes	Always



**How will we get there?**

Forest Hills has a formal software acquisition process that was developed during the 2007-2008 school year. Unfortunately it has been a struggle to get all district staff in the habit of using it regularly. Staff members should request consideration for specific curriculum or productivity software via a written form. The form collects data regarding the software's correlation to curriculum benchmarks and indicators, its compatibility with current technology systems, its capacity to serve students with disabilities, and its impact on the learning environment. The Curriculum Department evaluates the request based on the merits of its educational fit and the Technology Department evaluates the request based on its compatibility with current computer and network systems in addition to whether the software meets district technology standards. If the request is approved, a funding source is determined by the evaluation committee and the software is purchased.

**How will we know we are getting there?**

The FHSD technology department has many opportunities to gather feedback that can be used to evaluate the effectiveness of the software selection process. Standing meetings with the Curriculum and Student Services departments, the Building Technology Coordinators, and Media Specialists/eCoaches allow for adequate collaboration to evaluate technology initiatives. The bi-annual BETA survey as well as the VARtek end-of-year survey are also useful tools for soliciting data. The district is looking for a level of satisfaction from end-users that indicates that the software selection process is meeting the needs of the teachers and administrators.

**How will we sustain focus and momentum?**

It is the desire of the Forest Hills Local School District to improve the current process for selecting software by creating a yearly timeline for requesting, evaluating, purchasing and installing applications. At this time, a software purchase request can be made at any time of the year. Sometimes problems occur when a request is approved in the middle of the year. The requesting teacher is eager to have the software installed for classroom use, but this installation involves re-imaging many systems at a time when their use is at a very high level. Typically, re-imaging takes place during the summer months when usage is near zero. Creating a timeline would more clearly communicate the process, right down to understanding that installation of software is a summer activity.

**4.5 Security**

1. **None:** Organization does not have any of these policies or securities in place.
2. **Minimal:** The basic functions are present, but not all layers are addressed.
3. **Adequate:** The basic functions are present and all layers are addressed and integrated.
4. **Advanced:** The basic functions are present, all layers are addressed and integrated, and proactive monitoring with security response and forensic log analysis procedures are in place.

	Where are we now?	Where do we want to go?
AUP (Acceptable Use Policy)	Yes	Yes
User Account management and network authentication policies	2 - Minimal	4 - Advanced
Security zones	2 - Minimal	4 - Advanced
Wireless network security policies	2 - Minimal	4 - Advanced
Central log mechanism and review policy	2 - Minimal	4 - Advanced
Incident response procedures	3 - Adequate	4 - Advanced
Network security	2 - Minimal	4 - Advanced
Host Security	2 - Minimal	4 - Advanced
Data security / integrity	2 - Minimal	4 - Advanced
Anti-virus software	3 - Adequate	4 - Advanced
Spyware	3 - Adequate	4 - Advanced
Firewall	4 - Advanced	4 - Advanced
Filtering	4 - Advanced	4 - Advanced

**How will we get there?**

1. Students/parents are required to sign the district AUP at the start of each school year. Staff are not required to sign, but they are reminded that the acceptable use of district technology is part of Board policy and consequently, their contract. The AUP is available for review on our district Web site.
2. Network identities are managed in Novell eDirectory for all sites. Accounts are managed in groups wherever

possible, by building and by type (student, staff, admin), then in some cases by class assignment (especially art and computer programming). Accounts and resources are assigned in batches at the start of the school year, but mid-year additions and transfers are handled individually. Student accounts are usually removed at the end of each school year, but staff account removal is an individual process. We are moving toward automating account and resource assignment and integrating it with our new student information system (DASL).

3. Each building is its own security zone with the exception of our Board office, which is segmented by department (Accounting/Treasurer, HR, Curriculum, Transportation/Food Service). The district currently has a hardware firewall on the connection to our IT Center. We are also investigating the suitability of network admission authentication (802.1x) which will move access control from each server to the network edge where each workstation connects. At that time more effective segmentation of student/staff/admin traffic at each building should be possible. This is especially important for Access21 and other proposed projects.

4. Currently we use WEP encryption on wireless links, which should be updated to WPA authorization and encryption in conjunction with 802.1x support. This should be possible once the vast majority of our wireless notebook computers and access points support these protocols. Integrated wireless management hardware and software has been purchased and will be utilized beginning in the 09-10 school year.

5. At this time, each server maintains its own system log; however a project is under way to collect these logs on a central server for analysis. Once that is operational we will have a better idea of the resources necessary to watch for trends and exceptions.

6. Incident response procedures have been handled in the past on an as-needed basis. After upgrades to system logging are implemented we can develop our policies to watch network and server activity, detect unauthorized access, preserve available evidence, and prevent similar security events.

7. Network monitoring, for us, includes monitoring system presence service availability, and capacity, in order to prevent system slowness or outages. Unified system logging and analysis, mentioned earlier, will enable us to start automatically scanning system and network access for activity requiring further action.

8. Antivirus software, anti-spyware software, Internet filtering and anti-spam filtering are in place.

#### **How will we know we are getting there?**

The technology department hopes that every activity using technology within the district supports the educational process and stated curriculum objectives. The goal is to have zero security events: no inappropriate access, secure private information, and prevention of any loss of data or systems. The VARtek team will work with the district Technology Coordinator to develop policies and procedures for collecting and logging information, analyzing data for patterns and investigating atypical events.

#### **How will we sustain the focus and momentum?**

Utilizing the expertise of the VARtek Network Coordinator and Project Manager, the Forest Hills Local School District will develop security policies, procedures and a monitoring tool to protect the network and the data contained therein. Once complete, these items will become a part of the district teacher handbook and specialized training will be provided to ensure all district technology users understand the security issues that challenge the district.

## **4.6 Technology Support and Management**

### **Support Ratios (1:n)**

	<b>Where are we now? (1:n)</b>	<b>Where do we want to go? (1:n)</b>
Support Staff to Students	1:969	1:1,549
Support Staff to Teachers	1:51	1:81
Support Staff to Computers	1:388	1:620
Support Staff to Buildings	1:1.25	1:2

	Where are we now?	Where do we want to go?
Average Response Time (Days)	1	1/2
Service Level Agreement (SLA)	No	Yes
Full-time technology coordinator/director	Yes	Yes

#### How will we get there?

The Forest Hills Local School District feels that the current number of eight staff employed to respond to break/fix issues is adequate (typical response time 1-2 days). However, due to the defeat of our May 5, 2009 levy, the current technology services department will be released on June 30, 2009 in order to outsource technology management services with VARtek. VARtek will provide updates to the infrastructure and a migration from a Novell to Windows platform. By leveraging the use of newer, innovative technology made possible by improvements to the infrastructure and server environment, it is believed that there is potential for efficiency gains in the area of break/fix even though fewer technicians will be serving the district.

Throughout the first year of our contract with VARtek, the focus will be on the infrastructure upgrade project and the migration of district servers from a Novell platform to a Windows platform. VARtek network engineers will support both the existing Novell data center and also the new Windows data center in parallel throughout the platform migration process.

#### How will we know we are getting there?

VARtek will provide an end-of-year survey for all district staff. The survey will help the district and VARtek determine if their support offerings met or exceeded the needs of the user. One of the clearest indicators in the survey will be a comparison of the district's overall satisfaction rating observed during the technology needs analysis performed by VARtek in December, 2008 to the results of the 09-10 school year survey. The district is looking for a level of satisfaction from end-users that indicates that VARtek technology support meets or exceeds levels exhibited by the former technology services staff.

In addition, the FHSD technology department has many opportunities to gather feedback that can be used to evaluate the effectiveness of technology support. Standing meetings with the Curriculum and Student Services departments, the Building Technology Coordinators, and Media Specialists/eCoaches allow for adequate collaboration to evaluate technology support.

#### How will we sustain focus and momentum?

Through a partnership with VARtek managed services, the technology leadership will oversee projects and monitor technician response time as well as any emerging technology issues. VARtek has provided a Service Level Agreement that requires a ticket closure rate at a level greater or equal to current statistics (60% or greater closed within 1 school day, 90% or greater closed within 3 school days) a guaranteed 99% server up-time and a substantial financial penalty if either of these components from the Service Level Agreement are not met.

## 4.7 Total Cost of Ownership

**None** - This factor is not accounted for in the cost analysis.

**Some** - This factor has cursory consideration but is not a primary decision driver.

**More** - There is deliberate consideration for this factor, but it may not always be a primary decision driver.

**Extensive** - This factor is always considered in cost analysis and is a primary decision driver.

#### Process



	Where are we now?	Where do we want to go?
Vendor Relationships	More	Extensive
Procurement Plan	More	Extensive
Specifications/Requirements/Fits Analysis	Some	Extensive
Integration of donated time, materials or services	None	More
Deployment/Installation plan	Some	Extensive
Initial Training and Professional Development	Some	Extensive
Evaluation of current external support costs versus new purchase	Some	Extensive
Loss of institutional knowledge for replaced systems	None	None
Phase Out/Replacement cycle	More	Extensive
Disposal costs	Some	None

### How will we get there?

Our technology management partner, VARtek, utilized the TCO approach to planning the Forest Hills Local School District's future projects and deployments. The overall cost of the five-year contract that was approved by the district Board of Education was based on historical data regarding the district's technology investments for the previous four years in addition to the Treasurer's five-year forecast. The various appropriations were correlated with the state budget codes for easy comparison to previous expenditures.

With approval of the VARtek management solution, the district has committed to financially supporting technology and integration for the next five years. All hardware (with the exception of desktop computers) will be on a five-year replacement schedule, and VARtek will provide custom-built equipment in support of the refresh cycle.

### How will we know we are getting there?

The measurement of efficiency gains will be determined by the district's ability to maintain level annual costs over the course of the five-year contract. Anticipated efficiencies that will contribute to this savings include the successful use of remote access to reduce the number of technicians required to support the environment, the addition of a dedicated Network Engineer whose advanced skill set will be necessary for the support and management of the new Windows environment which will allow the district to take advantage of industry trends in voice and data communications as well as newer, lower-cost technology options. In addition, the FHSD technology department will continually evaluate VARtek's service and equipment against the factors defined by eTech: Vendor Relationships, Procurement Plan, Specifications/Requirements/Fits Analysis, Integration of Donated Time, Materials or Services, Deployment/Installation Plan, Initial Training and Professional Development, Evaluation of Current External Support Costs Versus New Purchase, Loss of Institutional Knowledge for Replaced Systems, Phase Out/Replacement Cycle, Disposal Costs.

### How will we sustain focus and momentum?

The Forest Hills Local School District will conduct an independent TCO analysis during the 2009-2010 school year utilizing the Global eSchools and Communities Initiative Planning Tool. This tool will help the district evaluate the VARtek technology management solution with regard to TCO to determine if adjustments to district budgets or VARtek's plan must be developed.

## Budget and Planning

### 5.0 Budget

Sound budgeting is important for your technology plan; not only to project future spending and funding, but also to meet requirements for various private, state and federal funding opportunities. It is recommended that a representative from your treasurer's office be involved in completing this phase.

	Where are we now?	Where do we want to go?			
	Current Fiscal Year	2009-10	2010-11	2011-12	Total
Network/Telecommunications Services	105,440.8	119,301.84	119,301.84	119,301.84	357,905.53
Hardware	1,031,580	1,062,228	1,093,794	1,126,308	3,282,330
Student Data Administrative Systems	62,638.9	63,738.6	65,410.57	67,372.7	196,521.88
Software	128,705	200,000	200,000	200,000	600,000
Security	5,132.4	5,422.35	5,422.35	5,422.35	16,267.05
Technology Staffing/Support	915,424	517,398	544,031	561,089	1,622,518
Professional Development	35,360	30,233	30,233	30,233	90,699
Consumables	76,429.25	76,429.25	76,429.25	76,429.25	229,287.75
Additional	178,698.49	178,698.49	178,698.49	178,698.49	536,095.45
<b>Total</b>	<b>2,539,408.8<sub>4</sub></b>	<b>2,253,449.5<sub>3</sub></b>	<b>2,313,320.5<sub>3</sub></b>	<b>2,364,854.6<sub>3</sub></b>	

#### *Additional Items*

TetraData Warehouse (CUR FUND) 70,000/yr

Study Island (CUR FUND) 60,570.95/yr

United Streaming (TECH FUND) 23,075/yr

TeachingBooks (TECH FUND) 1,500/yr

Tumble/Talking Book (TECH FUND) 4,850/yr

Follett Destiny ILS (TECH FUND) 18,702.54/yr

*Provide details about your budget process. How did your committee gather this data? Have you included spending amounts for planned future technology hardware, software, professional development, or other services?*

This year, our budget process was much different than ever before. Due to a May, 2009 operating levy, the 08-09 budget was reduced by 10% and the 09-10 budget was flat-lined, essentially creating an overall budget reduction of 13% as we move into the 09-10 school year. In the midst of these budget cuts, the district began investigating the possibility of outsourcing technology support services. The tech committee worked extensively with VARtek in the preparation of a five-year budget proposal that was eventually approved by our district Treasurer. The budget was based on historical data regarding technology expenditures over the previous four years. It also incorporated funding recommendation from our Treasurer's five year forecast. This comprehensive budget clearly defines the costs associated with the VARtek solution as well as the costs maintained by the district for products and services not provided by their company. All costs for future hardware, software, professional development and services were included. In reviewing the budget document, it is very clear where costs have shifted from district-centered to VARtek-centered.

#### **How will we get there?**

Partial funding for district telephones and long distance service, cell phones, Internet access, eMail and Web-hosting will continue to come from eRate at a discount of 40%. Adequate funding for the non-discounted share of eRate eligible services will come predominantly from the district general fund. This general fund, in addition to various bonds, Ohio Facilities Commission monies, SchoolNet grants, Title I (NCLB), Title II-D (EETT) and PTA gifts are additional funding options that are available for the acquisition and support of the necessary resources such as computers, training, software, etc. needed to make effective use of the discounted eRate services.

The district will request that an operating levy appear on the November, 2009 ballot. This operating levy is crucial to the continued development of the technology program in the Forest Hills School District. Technology funding may be negatively affected if this proposed operating levy is not approved.

## Appendix A - Additional Documents

Description	Name	Date Submitted
<u>Board Mission and Vision statement</u>	board vision statement.doc	April 20, 2006